



**CA Approval**



**JB Approval**

## REGIONAL FARE COORDINATION SYSTEM

### CHANGE ORDER NO. 10

**CONTRACTOR:** ERG Transit Systems (USA) Inc.  
**CONTRACT NUMBER:** 229944

This Change Order to Contract #229944 ("Change Order") is executed as of \_\_\_\_\_, by and between ERG Transit Systems (USA) Inc, a California corporation and wholly owned subsidiary of ERG Limited, an Australian corporation, (hereinafter referred to as the "Contractor") and each of the following seven public transportation agencies (hereinafter referred to individually as an "Agency" or collectively as the "Agencies"):

1. Central Puget Sound Regional Transit Authority ("Sound Transit")
2. King County ("King County")
3. Kitsap County Public Transportation Benefit Area ("Kitsap Transit")
4. Pierce County Public Transportation Benefit Area ("Pierce Transit")
5. Snohomish County Public Transportation Benefit Area ("Community Transit")
6. City of Everett ("Everett")
7. State of Washington, acting through the Washington State Department of Transportation, Washington State Ferries Division ("WSF")

#### Background

- A. Effective April 29, 2003, each of the Agencies and the Contractor entered into Contract #229944 ("Contract") to implement a Regional Fare Coordination System ("RFC System") to establish a common fare system utilizing smart card technology. The Contractor is responsible for the development, implementation, operation and maintenance of the RFC System as specified in the Contract.
- B. The Agencies and the Contractor desire to execute this Change Order No. 10 to revise the Contract to reflect no-cost approved decisions that have been made through the Request for Information (RFI) process and workshops and other communications. The decisions are reflected in approved design documents as appropriate.

The Agencies and the Contractor hereby agree to the following changes to the Contract:

### 1.0 Division I, II, and III Changes

1.1 Contract Sections I, II, and III are revised to reflect no-cost changes approved by the Agencies and the Contractor through the RFI process, workshops and other communications as described in the following table:

RFI No.	Item No. (1)	Description of Change	Contract Section	Revised Contract Language
SEA-00664 ERGRFI 00155	21	<p>Replace stored rides throughout the contract with Multiride.</p> <p>All changes identified in the RFI and agreed to by the Agencies have been incorporated. This section has then been made consistent with OR101 as approved at PDR.</p> <p>Also correct the numbering of 2.1.1.2 to 2.1.1.3 Customized Products. The contract has duplicate section numbers for Electronic Voucher and Customized Products.</p>	<p>3.I-76.4.11 6.II-2.1.1.2 6.II-2.1.1.23 6.II-2.2.2.3 (a) and (b) 6.II-4.2.2 (h) and (j) 6.II-5.2.3.3 (d) 6.II-9.2 6.II-11.1.6.1 6.III-2.4.3 6.III-2.4.3.1 6.III-2.4.3.3 6.III-2.4.3.4 6.III-2.4.3.5 6.III-2.4.3.7 6.III-9.2 6.III-10.2.1.2 6.III-10.2.1.4 6.III-10.9 6.III-13.3.2.2 Exhibit 9 II Exhibit 9 XIII</p>	<p>See Change Order 10 – Attachment A See Change Order 10 – Attachment I See Change Order 10 – Attachment I See Change Order 10 – Attachment J See Change Order 10 – Attachment K See Change Order 10 – Attachment L See Change Order 10 – Attachment M See Change Order 10 – Attachment N See Change Order 10 – Attachment B See Change Order 10 – Attachment B See Change Order 10 – Attachment B See Change Order 10 – Attachment B See Change Order 10 – Attachment B See Change Order 10 – Attachment B See Change Order 10 – Attachment O See Change Order 10 – Attachment P See Change Order 10 – Attachment P See Change Order 10 – Attachment P See Change Order 10 – Attachment P See Change Order 10 – Attachment F See Change Order 10 – Attachment R</p>
SEA-00202 ERGRFI 00041	3	Clarify that the signature process defined does not apply to Web enrollment.	6.II-1.2.1	See Change Order 10 – Attachment C
SEA-00547 ERGRFI 00132	16	<p>Update Figure II-1.1 to include Walk In Center and add a section for Set up and configuration of Auto Revalue.</p> <p>Add column for walk in center and identify required functionality as agreed with Agencies in this RFI and then modified somewhat in the review of OR 1 Customer Service at PDR document workshops.</p>	6.II-1.2.1 Figure II-1.1	See Change Order 10 – Attachment C
SEA-00203 ERGRFI 00042 Superseded by SEA-00545 ERG RFI 156.	4	<p>Change Figure II-11.1 to reflect fare transactions will be available via separate link on the primary customer page and specify amount of transaction history to be displayed.</p> <p>Add (30 days) to transaction history line and clarify that fare transactions will be available via a separate link on the primary customer page</p>	6.II-1.2.1 Figure II-1.1	See Change Order 10 – Attachment C
SEA-00684 ERGRFI 00159	22	Update Figure II-1.1 to add the ability to report a lost or stolen "linked card" at the RFCS website and to report a general issue.	6.II-1.2.1 Figure II-1.1	See Change Order 10 – Attachment C

RFI No.	Item No. (1)	Description of Change	Contract Section	Revised Contract Language
SEA-00200 ERG RFI 00039 SEA-00448 ERG RFI 00158	2	Clarify that PIN or password does not apply to anonymous card holders.	6.II-1.2.5 (k)	Customers with linked cards and institutions shall be able to establish a personal identification number (PIN) or password for access to account information.
CT Beta Test	29	Change CT Beta Test from 1 to 2 sites.	6.II-11.1.2.1 (a)	(a) The Beta Test shall consist of equipment installed at two bases, to be specified by the Contract Administrator, and must include CT's CSO to test the integration of the CT point of sale terminal with the new system.
None	31	Remove the contractual reference that is in error.	6.II-11.4.6.3 (a) (ix)	
SEA-00798 ERG RFI 00189	24	Add subsection to clarify payment options for Institutional Voucher program.	6.II-2.2.1 (i)	See Change Order 10 – Attachment S
SEA-00579 ERGRFI 00152 ERG RFI 235	20	Change the timing of card update download to the Revalue Network.  Change (a) from one (1) working day to "sixty (60) working days."	6.II-4.3 (d) and 6.II-5.3 (i)  6.II 4.3	See Change Order 10 – Attachment H
SEA-00217 ERGRFI 00052	6	Clarify revenue sharing processing rules.	6.II-5.2.2 (1) vii	(i) vii. The Contractor shall calculate the daily settlement due each Agency Specific revenue sharing processing rules shall be provided to support this calculation, but at a minimum, the following shall apply:  Revenues are settled based on number and type of transactions.  - For fare media (including e-purse) that are valid at more than one Agency, the Agencies will defer revenue for one month (or whatever timeframe is considered practical) and use actual data to adjust/settle the amounts.  - Upon sale of all multi-Agency passes or passes of 30 days or less in duration (i.e. weekly or daily), pass revenue will be distributed at the end of the pass period based upon actual usage.  - For monthly multi-Agency, period (multi-month) passes, revenue will be distributed in equal monthly amounts (i.e. 1/12 for annual, 1/3 for quarterly) based upon a pre-defined allocation formula to be supplied by the Agencies.  For fare media that are valid exclusively at one agency, or where the amount received by an Agency is a flat (predetermined) amount, the Agencies will receive all revenues on the day that the purchase transaction is complete
SEA-00205 ERGRFI 00044	5	Add definition of Expire Gap for transactions	6.II-5.2.2 (k)	(k) Contractor shall administer a claims fund held in an account designated by the Contract Administrator (DR 5.03). The claims fund shall be used to settle revenue for lost transactions or transactions that otherwise cannot be reconciled. Transactions will be considered expired if they have not cleared by the end of the expiration period and funds will then be transferred into the claims fund.
SEA-00218 ERGRFI 00053	7	Clarify that commissions will be handled outside of the Clearinghouse.	6.II-9.1 (b)	(b) The Agencies shall maintain and manage contractual agreements with retail outlets, and shall be responsible for the establishment of the commission structure. These commissions will be handled by the Agencies outside of the Clearinghouse.
SEA-00428 ERGRFI 00085	11	Clarify that the need for duplicate receipts is at the time of sale.	6.III-11.1 (i)	(i). Provide a transaction history on each fare card by accessing the clearinghouse database, and ability to print duplicate receipts at the time of the sale.

RFI No.	Item No. (1)	Description of Change	Contract Section	Revised Contract Language
SEA-00292 ERGRFI 00130	15	DAC and BOC Hardware configuration changes as discussed and agreed to with the Agencies. Change hardware requirements to reflect revised configuration as agreed with Agencies and as reflected in accepted PDR versions of DR 109 and DR 110.	6.III-12.4.1 (a)	See Change Order 10 – Attachment G
SEA-00544 ERGRFI 00124  SEA-00570 ERGRFI 00125	13	Data Communications for the DAC	6.III-12.7.2	<b>12.7.2 Data Communications</b>  (b) All batches shall be tagged with DACS header information including as a minimum DACS ID, date stamp, and time stamp.
SEA-00600 ERGRFI 00139	18	Clarification that Commercial account will be considered a product.	6.III-16.2(c)	16.2(c) At the point of use, the RFCS shall confirm that the Commercial Account Card and Identification number are valid. Invalid cards shall be rejected, and the Commercial Account product on the card shall be rejected as payment
ERG uncovered discrepancy in contract review	28	Remove incorrect reference in 6.III-16.3 –Section refers to 6.II-10.2.5.2 which does not exist.	6.III-16.3	<b>6.III-16.3 On-Call Maintenance Service Levels</b>  In addition to the requirements described in Exhibit 15 Post Warranty On-Site Maintenance, the Contractor shall meet the following requirement:  (a) For remote ferry locations (i.e., Anacortes, San Juans, Port Townsend and Keystone), Contractor shall arrive on-site within 4 hours rather than 90 minutes.
SEA-00612 ERGRFI 00167	23	Card Memory Storage Capability – The Agencies have accepted the DESfire as the primary fare card for the RFCS system. This results in some required changes to the memory requirements as discussed initially in this RFI but further in DR 101 review workshops.	6.III-2.4.2	<b>2.4.2 Card Memory Storage Capacity</b>  At a minimum, the memory storage capacity shall be sufficient to support all RFCS functions and shall ensure that the card has sufficient memory to store at least two other non-transit applications  (a) The Contractor shall choose and specify the memory capacity of the fare card given the requirements specified herein and according to the Contractor's analysis of those data and system requirements including the anticipated addition of RFCS and non-RFCS applications to the card. (b) The Agencies reserves the right to use the remaining memory on Agency issued fare cards for purposes not identified at time of Contract award.
SEA-00636 ERGRFI 00140	19	Move "Customer Zone Fare Preference Preset field from Base segment to Agency Data segment as agreed to by the Agencies.  Move this field from Base Segment (6.III-2.4.3.1) to Agency Segment (6.III-2.4.3.2) to allow this field to be used only by Agencies requiring this field. 2.4.3. Add "(non-disposable)" to this sections first sentence.	6.III-2.4.3.1 6.III-2.4.3.2	See Change Order 10 – Attachment B
SEA-00737 ERGRFI 00198	25	Combine fare category type and RRFP type into a single passenger type in the data to be stored on the fare card.  Remove Fare Category Type Indicator and RRFP Type Indicator from Section 6.III-2.4.3.1 and add a new data field – Passenger Type.	6.III-2.4.3.1	See Change Order 10 – Attachment B

RFI No.	Item No. (1)	Description of Change	Contract Section	Revised Contract Language
SEA-00564 ERGRFI 00133	17	Remove Ride Qualification Code from Regional Card Data.  Remove this field from table in Section 6.III-2.4.3.5.	6.III-2.4.3.5	See Change Order 10 – Attachment B
SEA-00123 ERGRFI 0032	1	Remove Entry Location 2 and 3 from Ride History- Data Fields - no longer required.	6.III-2.4.3.6 (b)	See Change Order 10 – Attachment B
UW Request	27	Remove the requirement for a bar code on the UW card. Remove Section 2.7.2.3 in its entirety	6.III-2.7.2.3	
SEA-00411 ERGRFI 00077  RFCS RFI 017	9	Update the structural features of the FTP enclosures.	6.III-3.4.2(a)	<p><b>3.4.2 Structural Features</b></p> <p>(a) The finish shall be orbital finished stainless steel, unless specified otherwise or approved by the Contract Administrator. The following changes have been approved by the Contract Administrator:</p> <p>1) The DDU and OBFTP will be manufactured from injected molded plastics</p> <p>2) The finish of the SAFTP will be non-ferrous bead blasted</p> <p>(b) Provisions shall be incorporated to clear any liquids that may enter the device or condensation that may develop.</p>
SEA-00925 ERGRFI 00199	26	Modify key or button life on DDU to 1 million actuations.	6.III-6.3 (c)	(c) All keys or buttons shall have a minimum 10 year service life in normal operation, regardless of number of actuations. In the event that a key or button fails before the 10 year service life, it shall be replaced at no cost to the Agencies per Section 4.1 of Exhibit 14 of the Contract provided such failure does not constitute an Agency responsibility as defined in Section 4.2 of Exhibit 14.
SEA-00449 ERG-RFI 088	12	Make changes associated with provision of Unitech PFTP Updated Section 6.III-8.5 (b), Figure III-8.1 and Section 6.III-8.2 (g) as noted in RFI and agreed to by WSF.	6.III-8.2 (g) 6.III-8.5(b) Figure III-8.1	See Change Order 10 – Attachment E
SEA-00399 ERG-RFI 071	8	Key Button Life-	6.III-9.4.3(a)	<p><b>9.4.3 Keypad (zone selection buttons)</b></p> <p>The keypad/zone selection buttons shall meet the following requirements:</p> <p>(a) All keys or buttons shall have a 10 year service life in normal operation, regardless of number of actuations. In the event that a key or button fails before the 10 year service life, it shall be replaced at no cost to the Agencies per Section 4.1 of Exhibit 14 of the Contract provided such failure does not constitute an Agency responsibility as defined in Section 4.2 of Exhibit 14.</p> <p>(b) The keypad shall be designed to be water and liquid resistant.</p>

RFI No.	Item No. (1)	Description of Change	Contract Section	Revised Contract Language
SEA-00572 ERGRFI 00129	14	Clarify approach to meeting the requirements related to remote monitoring of the SAFTP.	6.III-9.5 (b)	<p><b>6.III-9.5 Data Exchange Requirements - Stand Alone FTP</b></p> <p>(a) SAFTPs shall include a communications module for connecting to a DAC and the capabilities to be connected to a PC through a standard port.</p> <p>(b) The Contractor shall provide the software for a PC that allows the use of a PC keyboard to operate the SAFTP and PC monitor to display the card data. This connection from the SAFTP will be provided via an auxiliary serial port that is sealed within the SAFTP mounting pole or wall cradle and accessible at a remote location within visual range of the SAFTP.</p> <p>(c) SAFTPs supplied for WSF shall include a standard serial interface, designed for future connection to WSF's new point of sale system. The Contractor shall provide an Interface Control Document (DR 106.02) fully describing this interface.</p> <p>(d) SAFTPs and associated DACs installed at Sound Transit rail stations shall communicate through Sound Transit's existing TVM communications network</p>
None	30	Reverse delivery sequence of CDRL 22 and CDRL 23.	Figure 6.II-11.6	See Change Order 10 - Attachment T

Note: (1) Identifies the contract change item number according to the "RFI/Contract Change Matrix" in the ERG Change Request SEA-01306.

1.2 The Agencies and the Contractor hereby agree to Amendment 9 without further execution, a copy of which is attached hereto as "Change Order No. 10 - Attachment A."

1.3 All other no-cost decisions not identified in this Change Order No. 10 will be reflected in subsequent Change Orders.

## 2.0 Other Terms and Conditions

Except as expressly amended by this Change Order, the Contract remains in full force and effect. All other provisions of the Contract not referenced in this Change Order No. 10 shall remain in effect unless modified in other executed Amendments and Change Orders.

IN WITNESS WHEREOF, the parties hereto have executed this Change Order No. 10 to Contract #229944 as of the date set forth below its signature.

**ERG Transit Systems (USA) Inc.**

By: Patrick Brunel  
Its: PROJECT MANAGER  
Date: 28-Nov-05

**The Agencies**

By: Candace Carlson  
Their: Contract Administrator  
On behalf of the Agencies  
Date: 11/28/05

**Central Puget Sound Regional Transit Authority**

By: \_\_\_\_\_  
Its: \_\_\_\_\_  
Date: \_\_\_\_\_

**King County**

By: \_\_\_\_\_  
Its: \_\_\_\_\_  
Date: \_\_\_\_\_

**Pierce County Public Transportation Benefit Area**

By: \_\_\_\_\_  
Its: \_\_\_\_\_  
Date: \_\_\_\_\_

**Washington State Ferries, Washington State Department of Transportation**

By: \_\_\_\_\_  
Its: \_\_\_\_\_  
Date: \_\_\_\_\_

**City of Everett**

By: \_\_\_\_\_  
Ray Stephanson, Mayor, or His Designee  
Date: \_\_\_\_\_

**ATTEST:**

By: \_\_\_\_\_  
Sharon Marks, City Clerk  
Date: \_\_\_\_\_

**APPROVED AS TO FORM:**

By: \_\_\_\_\_  
James D. Iles, City Attorney  
Date: \_\_\_\_\_

**Kitsap County Public Transportation Benefit Area**

By: \_\_\_\_\_  
Its: \_\_\_\_\_  
Date: \_\_\_\_\_

**Snohomish County Public Transportation Benefit Area**

By: \_\_\_\_\_  
Its: \_\_\_\_\_  
Date: \_\_\_\_\_

## Table of Attachments

A	Amendment 9 for Div. I changes
B	6.III-2.4.3
C	6.II-1.2.1
D	left blank due to move to different CO the changes to remove LonWorks port
E	6.III-8.1, 8.2 and 8.5
F	Exhibit 9 II
G	6.III-12.4.1
H	6.II-4.3 and 6.II-5.3
I	6.II-2.1.1
J	6.II-2.2.2.3
K	6.II-4.2.2
L	6.II-5.2.3.3
M	6.II-9.2
N	6.II-11.1.6.1
O	6.III-9.2
P	6.III-10.2.1.2 and 10.2.1.4 and 10.9
O	left intentionally blank to move changes to 6.III-13.3.2.2 to upcoming Reporting CO
R	Exhibit 9 XIII.
S	6.II-2.2.1 (i)
T	Figure II-11.6



## **Amendment Nine to the Contract for the Design, Implementation, Operation and Maintenance of the Regional Fare Coordination System**

This Amendment Nine to the Contract for the Design, Implementation, Operation and Maintenance of the Regional Fare Coordination System is incorporated into Contract Change Order No. 10.

### **Recitals**

- A. Effective April 29, 2003, each of the Agencies and the Contractor entered into Contract #229944 ("Contract") to implement a Regional Fare Coordination System ("RFC System") to establish a common fare system utilizing smart card technology. The Contractor is responsible for the development, implementation, operation and maintenance of the RFC System as specified in the Contract.
- B. The Agencies and the Contractor desire to enter into this Amendment Nine to revise certain areas of Division I of the Contract to align the Contract with no-cost decisions agreed by the Agencies and ERG through the Request for Information (RFI) process, workshops, and other communications.

NOW, THEREFORE, in consideration of the mutual covenants contained herein and in the Contract, the sufficiency of which is hereby acknowledged, each Agency and the Contractor hereby agree to amend the Contract as follows:

### **Section 1.0**

Section 3.I-76.4.I1 of the Contract is hereby amended to read as follows:

#### **76.4.11 Clearinghouse Services**

- a. Prices for Clearinghouse Services shall remain as specified in Exhibit 9, Section XIII for three (3) years after Full System Acceptance. Thereafter, the Fixed Monthly Fee in said Exhibit shall be subject to annual adjustment upward or downward, effective on the anniversary of the first day of the first complete month following Full System Acceptance, in accordance with the formula set forth in Section 76.6 or the Price Warranty in Section 3.I-62, whichever shall result in the lowest prices.
- b. There are two types of transaction fees, 1) General, and 2) 3<sup>rd</sup> Party Revalue. The General Transactions consists of E-Purse, Pass and Multi-ride, Payment and Revalue transactions and the fee shall be determined according to the total number of transactions generated by the Agencies' transit application (which may include transactions generated by non-Agency card acceptors) processed in a month as specified in Exhibit 9, Section XIII and shall be applied to each such transaction. The 3<sup>rd</sup> Party Revalue Transaction Fees shall be those revalue transactions performed only through 3<sup>rd</sup> party retailers.
- c. The "Fixed Monthly Fee" and "Transaction Fees" (both General and 3<sup>rd</sup> Party Revalue) will be payable on a monthly basis.

### **Section 2.0**

All other provisions of the Contract not referenced in this Amendment Nine shall remain in effect.

### 2.4.3 Data on the Regional Fare Card

The following minimum data segments shall be provided on the "normal (non-disposable) fare" card (DR 101.05):

- (a) Base Segment
- (b) Agency Data
- (c) RFCS Stored Value Purse
- (d) Pass Products (zero or more)
- (e) Multi-ride Products (zero or more)
- (f) Ride History
- (g) Revalue History

The way data is stored on a fare card is not specified.

#### 2.4.3.1 Base Segment (One Per Card)

The base segment shall consist of the following minimum data fields:

Data Field	Comments
Card Serial Number	Regional Fare Card-assigned number
Card Expiration Date	Based on life of card
Passenger Type Indicator	Adult, RRFP senior, RRFP disabled, youth or other category
Passenger Vehicle Type Indicator	Defines the default vehicle type for WSF vehicle ferry travel (up to 20 different types; 7 types estimated initially)
Passenger Type Expiration Date	Required for temporary disabled
Cardholder Birth Date	Optional for RRFP cards or youth

#### 2.4.3.2 Agency Data (Optional Data Per Agency)

Agency-specific data that needs to be stored on the fare card (not required by all agencies).

- (a) This feature shall be transparent to the customer.
- (b) The Agency Data shall consists of the following minimum data fields:

Data Field	Comments
	Loyalty meters (as described in the PDR document) will not be stored on the fare card.
	Loyalty meters (as described in the PDR document) will not be stored on the fare card.
	Loyalty meters (as described in the PDR document) will not be stored on the fare card.
	Loyalty meters (as described in the PDR document) will not be stored on the fare card.
	Loyalty meters (as described in the PDR document) will not be stored on the fare card.
	Loyalty meters (as described in the PDR document) will not be stored on the fare card.
Customer Zone or Route Fare Preference Preset	Parameter that indicates the customer's preference for number of zones of travel in a multi-zone system (e.g. 1, 2 or 3), or WSF route designated by an origin-destination pair. Functionality to be included but implemented per Agency policy.

#### 2.4.3.3 RFCS Stored Value Purse (One Per Card)

If a card has an RFCS stored value purse, monetary value will be added by the add fare process and subtracted through fare calculations. The RFCS Stored Value Purse shall consist of the following minimum data field:

Data Field	Comments
	To be stored in CD
Remaining Value on Card	Current stored value remaining on card.

#### 2.4.3.4 Pass Products

A card may be loaded with zero or more passes. Only one pass of the same type may be currently active for an Agency. The Pass shall consist of the following minimum data fields:

Data Field	Comments
Start Date of Pass	First date for rides
Expiration Date of Pass	Last date for rides
Type of Pass	e.g. Day Pass, Monthly, Employer, Campus, Puget Pass

#### 2.4.3.5 Multi-Rides

"10 Day Passes (Trips or Rides)" will be stored as Multi-ride Products, rather than 10 individual ride products. This provides additional flexibility for the agencies (allowing 20 ride products, for example) as well as requiring less storage space on the card

A card may be loaded with one or more blocks of stored rides, or trips, in the form of multi-ride products.

- (a) The fare card shall include capacity for at least one multi-ride product for each of the participating Agencies.

- (b) Only one multi-ride product of the same type may be currently active per Agency. Multi-ride products on the card shall be in addition to any active passes for the Agency.
- (c) Multi-ride products may be specific to one Agency, or valid across multiple Agencies.
- (d) Each multi-ride product shall include the following minimum data fields:

Data Field	Comments
Agency	Agency who issued multi-ride product
Remaining Rides	Number of rides remaining in the multi-ride product
Expiration Date	Latest date, after which the product is no longer valid

#### 2.4.3.6 Ride History (Last Ten Rides)

“Ride History” for all Agencies will be stored in a single 10-record transaction ride log. Each time a card is tagged for a new ride, a record is created and the oldest record shall be purged.

- (a) The card shall have sufficient capacity to store the last ten (10) transactions system wide.
- (b) The Ride History shall include the following minimum data fields:

Data Field	Comments
Agency Providing Service	Agency providing ride
Route/Run/Trip	Route, run, and trip code as applicable to Agency
Entry Transaction Location 1	
Ride date	
FTP Number	FTP ID number
Time of Transaction	
Amount of Transaction	Amount decremented from stored value of the card for current ride or transfer
Transaction Code	Such as: Ride, Reversal, Transfer, Short-payment (fare), Upgrade Fare, Exception, including any combination thereof (for example, pass transaction with stored value upgrade).
Terminal Exit Transaction	(Optional) exit FTP ID number
Time of Exit	(Optional)
Exit Transaction Location	

#### 2.4.3.7 Revalue History (Last Five Value Adds)

“Revalue History” for all Agencies will be stored in a single, five-record revalue log. Same as the ride history, each time a card is revalued with a new value or pass, a revalue record is created and the oldest revalue record is purged.

The Revalue History shall include the following minimum data fields:

Data Field	Comments
Revalue Type	Such as: Initial value, value add, pass, stored rides, adjustment
Revaluing Entity	Agency or Contractor selling value
Terminal ID of Purchase	
Purchase Date	
Time of Purchase	
Amount of Revalue	

**Section 6.II-1.2.1 Customer Service**

The Contractor shall provide the equipment and services to support first and second tier customer service activities as listed in Figure II-1.1.

**Figure II-1.1 Customer Service Activity Summary**

	<b>Business Processes</b>	<b>Walk-In Center</b>	<b>Agency Call Center</b>	<b>Mail Center</b>	<b>Web</b>	<b>ESB Call Center</b>
	<b>New Card</b>					
1	Personalize (Initialize) Card (Card Data)	Yes	No	Yes	No	No
2	Secondary Print Card	Yes	No	Yes	No	No
3	Card Account Setup (Update Clearinghouse)	Yes	Yes	Yes	Yes	No
4	Process New Card Fee	Yes	Yes	Yes	Yes	No
5	Issue Card to Customer	Yes	No	Yes	No	No
6	Mail Card	No	No	Yes	No	No
	<b>Cardholder Registration (Linking and Maintaining Information)</b>					
7	Collect/Update Cardholder Personal Information and Update Database	Yes	Yes	Yes	Yes	Yes
8	Obtain Secure Website Access	No	No	No	Yes	No
	<b>Revalue an Existing Card</b>					
9	Process Payment	Yes	Yes	Yes	Yes	Yes
10	Update Database	Yes	Yes	Yes	Yes	Yes
11	Update Card (If Card Present)	Yes	No	Yes	No	No

	Business Processes	Walk-In Center	Agency Call Center	Mail Center	Web	ESB Call Center
12	Download Transaction to Revalue Network (If Card Not Present)	Yes	Yes	Yes	Yes	Yes
13	Reverse Revalue	Yes	No	No	No	No
<b>Customer Inquiries</b>						
14	Provide Balance	Yes	Yes	Yes	Yes	Yes
15	Reporting Customer Feedback	Yes	Yes	Yes	Yes	No
16	Resolving Customer Inquiries/Complaints	Yes	Yes	Yes	Yes	Yes
17	Inquire on Transaction History and Card Balance	Yes	Yes	Yes	Yes	Yes
<b>Lost Or Stolen Cards (Linked Cards Only)</b>						
18	Update Database	Yes	Yes	Yes	Yes	Yes
19	Download Block Transaction	Yes	Yes	Yes	No	Yes
20	Order Replacement Card	Yes	Yes	Yes	Yes	Yes
21	Issue New Card (Linked Only) to Customer	Yes	No	Yes	No	No
22	Issue New Card (Linked Only) by Mail	No	No	Yes	No	No
23	Replace Value (Linked Only)	Yes	No	Yes	No	Yes
<b>Returned Cards</b>						
25	Receive Expired Card	Yes	No	Yes	No	No
26	Receive Surrendered Card	Yes	No	Yes	No	No
<b>Malfunctioning Card</b>						
27	Update Database	Yes	No	Yes	No	No
28	Receive Bad Card	Yes	No	Yes	No	No
29	Replace Card	Yes	No	Yes	No	No
30	Replace Value	Yes	No	Yes	No	No

	Business Processes	Walk-In Center	Agency Call Center	Mail Center	Web	ESB Call Center
	<b>Set-Up Automatic Revalue</b>					
32	Order/Provide Authorization Form for Customer	Yes	Yes	No	Yes	Yes
33	Receive Authorization from Customer	Yes	No	Yes	Yes	No
34	Set up and Configure Automatic Revalue Program:	Yes	No	Yes	Yes	No
35	Update Card (If Card Present)	Yes	No	Yes	No	No
36	Download Data to Revalue Network (If Card Not Present)	No	Yes	Yes	Yes	No
	<b>Terminate Automatic Revalue</b>					
37	Update Database	Yes	Yes	Yes	Yes	Yes
38	Update Card (If Card Present)	Yes	No	Yes	No	No
39	Download Data to Revalue Network (If Card Not Present)	No	Yes	Yes	Yes	Yes
	<b>Problem Reporting</b>					
40	Manage and Track Problems	Yes	Yes	Yes	No	Yes
41	Update Knowledge Base and Help Files	Yes	Yes	Yes	No	Yes
	<b>Card Refunds</b>					
42	Record Refund Request	Yes	Yes	Yes	No	No
43	Authorize Refunds	Yes	Yes	Yes	No	No
44	Issue Checks for Approved Refunds	Yes	Yes	Yes	No	No
	<b>Institutional Programs</b>					
45	Respond to Inquiries	Yes	Yes	Yes	Yes	Yes
46	Manage Institutional and Card Accounts	No	No	No	Yes	No



	Business Processes	Walk-In Center	Agency Call Center	Mail Center	Web	ESB Call Center
	<b>Redirect Inquiries to Relevant Agency</b>					
47	Redirect to an Agency	Yes	Yes	No	Yes	Yes
48	Redirect to ESB Support	Yes	Yes	Yes	Yes	Yes
	<b>Additional Services</b>					
49	Purchase RRFP Card	Yes	No	Yes	No	No
50	Preset Zone Fare Preference	Yes	No	Yes (if card present)	No	No
51	CST Revenue Servicing	Yes	No	Yes	No	No

\* Revalues handled through the Call Centers, Mail Centers, and Internet will be downloaded to the revalue network.

\*\* The Internet website will be operated by the Contractor on behalf of the Agencies.

\*\*\* Fare transactions should be available through a separate link on the primary customer page



### 6.III-8.1 Subsystem Description - Portable FTP

The Contractor shall provide portable FTPs for Agencies that have a need for a portable card reading and transaction processing device.

The Portable FTP (DR 105) shall be a handheld, ruggedized unit operated by Agency personnel to process RFCS transactions in a mobile or portable environment. The PFTP will be powered by a rechargeable battery that can be recharged by placing the unit in a cradle or by a 12VDC adapter cable for in-vehicle use.

The PFTP shall be supplied in two configurations:

- As a limited function, verifier only PFTP (DR 105.01) for Sound Transit proof of payment fare inspection. The unit shall be light, have low power consumption, and be able to conduct fare verification with minimal operation by the fare inspector.
- A full-function PFTP (DR 105.02) for agencies such as WSF and Kitsap Transit, and potentially for paratransit and vanpool applications.

The Portable FTP (PFTP) shall, at a minimum, consist of the modules listed in Figure III-8.1.

**Figure III-8.1  
PFTP CONFIGURATION SUMMARY**

Modules	Portable FTP
Central Processing Unit	X
Contactless Card Interface	X
Customer Display/Indicator	X
Charger/Cradle	X
Communications Interface(s)	X

"X" denotes module required by Contract

### 6.III-8.2 Functional Requirements - Portable FTP

The following functional requirements supplement those stated in Section 6.III-3.2.

- (a) Log-on from Agency personnel shall occur via a log-on smart card or through a built-in PFTP keypad.
- (b) For Washington State Ferries, the operator shall be able to select a destination and associated fare basis through the portable FTP keypad.
- (c) Except as noted in (e), the PFTP shall require no interaction other than the tag of a card within an Agency-configurable timeout period to perform card inspections. The timeout period shall automatically reset in the event of any of the following:
  - i. The card inspection mode of the PFTP has been selected
  - ii. Inspection mode is reactivated by the inspector after a timeout.

- iii. A previous inspection has been completed
- (d) The verifier-only PFTP shall record inspection counts by fare category, fare type, operator ID, and time segment.
- (e) The PFTP shall allow the operator to override a default fare transaction (e.g. to pay for multiple fares from a single card, or to pay a fare other than the default).
- (f) The full function PFTP shall perform all functions of the verifier, plus, Agency personnel shall be able to:
  - i. Determine card balance, number of stored rides on the card, or the existence of a pass.
  - ii. Provide historical information to the Cardholder by scrolling through the transaction history of the last ten transactions stored on the card.
- (g) PFTPs for WSF applications shall include the ability to support an external printer, connected through either through the USB port or through a Bluetooth module inserted in the expansion slot.

#### **6.III-8.5 Data Exchange Requirements - Portable FTP**

Data exchange requirements described in Section 6.III-3.6.1(a) are replaced by the following:

- (a) The verifier-only PFTP shall communicate with the DACS through a serial interface to the PFTP cradle. Subject to communications availability, the PFTP shall be able to share the same DACS as the Stand Alone FTPs installed at Sound Transit rail platforms.
- (b) The full function PFTP shall include the following communications ports, configurable by application:
  - i. A serial communications port for direct connection or connection through a cradle to the DACS or an external modem.
  - iii. A PCMCIA or other industry standard slot for connection of an 802.11 client adapter, Bluetooth module for use with an external modem or printer, or other wireless communications device.
- (c) The full function PFTP shall be supplied with the 802.11 client adapter, CDPD modem, or other wireless communications device as required (DR 104.05).
- (d) All communications shall be automatically initiated and completed.

# Change Order No. 10 -- Attachment F

## Exhibit 9, II. EQUIPMENT Prices

### A. FARE TRANSACTION PROCESSOR (FTP)

A.1 On Board FTP	1,500 or less	1,501-3,000	Over 3,000
	\$721	\$687	\$680
PRICE PER UNIT	50 or less	51-80	Over 80
A.2 Stand Alone FTP			
a. Sound Transit Configuration (w/buttons)	\$3,626	\$3,463	\$3,435
b. WSF Configuration (w/o buttons)	\$3,522	\$3,354	\$3,321
A.3 Portable FTP	100 or less	101-500	Over 500
a. Portable FTP -- verifier only	\$1,327	\$1,300	\$1,274
b. Portable FTP -- Full Function	\$1,792	\$1,756	\$1,721
c. Portable FTP -- Original Submission (P4000)	\$2,102	\$2,081	\$2,060

**6.III-12.4 Physical Requirements – Data Collection System****12.4.1 Data Acquisition Computer**

- (a) The DACS shall consist of standard PC components with minimum requirements as follows:

Component	Requirements
CPU	Intel Pentium 4 or Xeon, operating at $\geq 1.5$ GHz. 1U or 2U rack configuration
Network Interface Card	10/100 Mb/s Ethernet NIC
RAM	$\geq 512$ Mb
Hard Drive	$\geq 40$ Mb, 7200 RPM
CD ROM	$\geq 48x$
Removable Media	CD R/W with software to write large data files across multiple CD's
Operating System	Windows-based (NT, 2000, 2003, XP Professional)

- (b) The applications shall be programmed in high order languages such as JAVA, Visual Basic, or C++ and distributed objects.
- (c) Equipment will be installed in a secure location.
- (d) Each DAC shall have sufficient hard disk space to hold a minimum ninety (90) days of transactions.

#### **6.II-4.3 Performance Requirements**

- (a) The Contractor shall initialize and distribute cards within sixty (60) working days of request.
- (b) The Contractor shall implement quality assurance steps which ensure the accuracy of information stored on the card and in the database. Quality assurance steps are subject to approval by the Contract Administrator.
- (c) Contractor shall track and manage card failure rates per the requirements of Section 6.III-2.
- (d) All card updates shall be transmitted to the revalue network within twenty four (24) hours and to the data acquisition systems within twelve (12) hours of recording of the transaction by the clearinghouse system.

#### **6.II-5.3 Performance Requirements**

- (a) The batch interface shall have a minimum 99% availability 24 hours a day, 7 days a week, per the availability formula contained in Section 6.III-1.5.2.
- (b) The on-line interface shall have a minimum 99% availability 24 hours a day, 7 days a week, per the availability formula contained in Section 6.III-1.5.2.
- (c) Revenue shall be reconciled and settled with 100% accuracy.
- (d) Financial settlement shall be the next business day after transactions are uploaded to the clearinghouse system.
- (e) Daily reports shall be available by 8 a.m. Pacific time the next business day.
- (f) Monthly reports shall be available by the sixth (6<sup>th</sup>) business day of the following month.
- (g) Data extracts for the Agencies shall be available the next business day.
- (h) At a minimum, data shall be uploaded and downloaded every 24 hours.
- (i) Card, application and function blocks, option changes, and revalue information shall be downloaded to the Data Acquisition System within twelve (12) hours and to the Revalue Network within twenty four (24) hours of recording by the clearinghouse system.

## 6.II-2.1 Institutional Program Descriptions

### 2.1.1 Employer Programs

Employer programs involve a financial subsidy by employers for travel on one or more Agency services by their employees. Three (3) different employer programs shall be provided by the Contractor in the RFCS, corresponding to existing employer program types as summarized in Figure II-2.1.

**Figure II-2.1: RFCS Employer Programs**

New RFCS Employer Program Type	Existing Employer Program Type
1. Right-to-Ride	FlexPass
2. Electronic Voucher	Commuter Bonus Voucher Pre-Paid Pass
3. Customized Products	Direct Pass Sales Direct Ticket Book Sales

Travel may be on regular routed service, paratransit, and/or vanpools. For vanpools, financial subsidies shall be applied directly to the specific vanpool designated by the institution. The Contractor shall coordinate with and report vanpool subsidies to the vanpool administrator at the participating Agency(s).

The Contractor shall also provide options to develop new programs in the future, including programs that combine features of those listed in Figure II-2.1.

#### 2.1.1.1 Right-to-Ride Pass (e.g. FlexPass)

The right-to-ride pass shall provide for unlimited use pass privileges by employees of an institution on one or more Agency public transportation systems. The pass privileges will remain in effect until canceled by the employer or Agency.

Data shall be collected for each pass transaction, and may be used to compute the basis for payment by the employer. Survey or other data may also be used to determine payment basis.

The RFCS shall provide two right-to-ride pricing alternatives:

**Flat Rate Pricing.** The Agency and employer negotiate a flat rate price for all Agency passes (price will vary by Agency), and update the price annually. Data on actual use (recorded pass transactions) of Agency services in the previous period is used to update the negotiated flat rate price for the following period.

**Per Trip Pricing.** The Agency and employer negotiate a price per trip. Employers are billed based on the actual use (recorded pass transactions) of the Agency service at the agreed per-trip price.



An electronic voucher is the fare card equivalent of the current employer sponsored Commuter Bonus Voucher. This program shall provide for a fixed dollar amount subsidy to be distributed monthly to participating employees. The subsidy is valid for stored value, multi-ride or pass purchase on any Agency public transportation service at the discretion of the employee.

The actual amount of the subsidy shall be configurable by individual employee or groups of employees (e.g. one group may receive a \$25 subsidy while another may receive a \$50 subsidy).

The RFCS shall include the capability of canceling unredeemed vouchers under the following circumstances:

- (a) At the direction of the Agencies in the event of non-payment by the institution.
- (b) If the voucher has not been redeemed within a period specified by the Agencies (e.g. 90 days). In this case, unredeemed value shall be credited to the institution account.

### **2.1.1.3 Customized Products**

Customized products refers to the loading of a specified pass, multi-ride or stored value amount directly to a card or series of cards through any RFCS revalue option.

An Agency or Institution shall be able to designate (order) the product(s) to be loaded, with the card automatically revalued when presented at any revalue point in the network. If the product has not been loaded within a period specified by the Agencies (e.g. 90 days), the product shall be canceled and unredeemed value credited to the institution's account.

**6.II-2.2.2.3 Customized Product Program (DR 2.03)**

- (a) An institution shall be able to order specific RFCS passes, multi-ride or stored value amounts for identified cards.
- (b) The RFCS shall automatically load the specified pass, multi-ride or stored value amount at any revalue point in the network when the card is presented.
- (c) The product shall be applied only once.
- (d) The product shall be canceled and the value credited to the institution account if not redeemed within a pre-defined timeframe (variable parameter to be determined by the Agencies).

## 6.II-4.2.2 Card Information

### (h) Automatic Revalue Information

#### i. Revalue threshold

Period pass – type, validity/activation date, and expiration date

Multi-ride - type, validity/activation date, and expiration date

Stored value - dollar amount

Electronic Voucher – dollar amount

#### ii. Credit card account number (not on fare card - only in central database)

#### iii. Debit card account number (not on fare card - only in central database)

#### iv. Direct debit bank information (not on fare card - only in central database)

#### v. Autoload (Electronic Voucher or Customized Product) status – pending, loaded, expired (not on fare card – only in central database).

### (i) Not Sufficient Funds (NSF) History

### (j) Current Account Balances

#### i. Stored value (dollar value with a configurable maximum). The Contractor may identify a maximum purse value consistent with their business strategy.

#### ii. Passes (fixed period [e.g. day pass, weekly pass, two week pass, calendar month, etc.] or rolling period [e.g. 7, 14, 28, 30, 90, 365 days, etc.]

#### iii. Multi-rides (maximum and number remaining, validity period)

**6.II-5.2.3.3 Data Download (From Clearinghouse System)**

- (d) The following types of transactions and information flow shall be supported:
- i. Function and card blocking and unblocking
  - ii. Revalue orders including electronic vouchers or voucher updates, and fare products (passes, multi-rides, stored value).
  - iii. Fare tables
  - iv. Reversals of automatic revalues
  - v. Privilege and option changes / cancellations
  - vi. Reports
  - vii. Transaction logs
  - viii. Database off load
  - ix. ACH settlement transactions

### **6.II-9.2 Functional Requirements**

The revalue network and support services shall meet the following functional requirements:

- (a) The revalue network as a whole shall cover all types of RFCS revalue functions and fare categories, including passes, multi-rides and stored value.
- (b) The revalue network shall permit customers to pay with multiple forms of payment. Not all devices are required to support all types of payment, but the revalue network as a whole shall support payment by cash, credit, debit, electronic purse, and employer program electronic coupon.
- (c) Some or all of the revalue network shall permit customers to check the remaining balance on their cards and to view transaction history up to the last 10 transactions.
- (d) The revalue network system and data shall be auditable by independent auditors should the Contractor and/or the Agencies deem an audit necessary.
- (e) The Contractor shall train Agency staff in the operation of retail outlet revalue devices. Agency staff will be responsible for training retail outlet staff.

**6.II-11.1.6.1 (d) Vanpool Demonstrations - Vanpools equipped with PFTP**

(d) The Vanpool Demonstration shall test as a minimum:

- i. The use of all pass and stored value fare payment methods accepted on fixed route services for vanpool fare payment. Multi-ride will not be considered a valid payment for vanpools.
- ii. Fare payment for both regular and infrequent riders.
- iii. Transfers between vans.
- iv. Transfers between vans and fixed route transit services.
- v. The allocation of subsidies for vanpool services and use, including subsidized passes and the Electronic Voucher Program.
- vi. Methods for easily downloading transaction data and uploading new tables and parameters to the PFTP.

### **6.III-9.2 Functional Requirements - Stand-Alone FTP**

(d) SAFTPs supplied for WSF shall be able to conduct fare transactions as follows:

- i. Automatically with no toll booth seller interaction when a card is presented and a default fare deducted or pass recorded.
- ii. Through manual fare determination from WSF revenue collection (point of sale) system. In this case, the fare will be computed by the WSF revenue collection system, with the SAFTP acting as a payment acceptance peripheral. Valid pass and multi-ride products shall be recognized and applied to the cost of the fare. The remaining fare shall be deducted from stored value.

#### **6.III-10.2.1.2 Card Balance Inquiries**

The response to a “Balance Inquiry” shall display the following information:

- (a) Stored value balance on the card.
- (b) Active passes on the card, by Agency.
- (c) Active Multi-rides on the card, by Agency

#### **6.III-10.2.1.4 Pass or Multi-Ride Load**

- (a) For pass or multi-ride transactions, the customer shall select the Agency and desired fare type.
- (b) The device shall read the reduced fare privileges encoded on the card, and automatically determine whether a discount is available for the requested type of fare at the relevant Agency (e.g. youth monthly pass).
- (c) The device shall display the fare type and value and the customer shall select the method of payment.
- (d) The device shall allow a customer to use cash, credit, debit or RFCS smart card stored value for pass purchase.

#### **6.III-10.9 Testing Requirements and Procedures – TVM Integration**

- (a) A minimum of 10,000 transactions shall be conducted.
- (b) Transactions shall be divided evenly among all possible card purchase and load transactions of which the device is capable.
- (c) The transactions shall also employ all possible payment combinations for a device.
- (d) The stored value amounts, stored pass and multi-ride types and amounts, and fare amounts shall be representative of those expected to be employed in the RFCS.
- (e) Detailed information regarding the transaction types, values, and payment methods to be used in the cycling test shall be included in the Detailed Test Procedures and subject to Contract Administrator approval.





### **Exhibit 9 XIII. Clearinghouse Services**

The Transaction Fee is a variable rate for the number of transactions performed each month. This fee only includes the variable costs that are incurred in addition to the Fixed Monthly Fee.

There are two types of transaction fees, 1) General, and 2) 3<sup>rd</sup> Party Revalue. The "General Transactions" consists of E-Purse, Pass and Multi-Ride Payment and Revalue transactions and the fee shall be determined according to the total number of transactions generated by the Agencies' transit application (which may include transactions generated by non-Agency card acceptors) processed in a month and shall be applied to each such transaction. The "3<sup>rd</sup> Party Revalue Transaction Fees" shall be those revalue transactions performed only through 3<sup>rd</sup> party retailers.

The transaction quantities listed below are for all transactions generated by the Agencies' transit application, which may include transactions generated by non-Agency card acceptors.

#### **6.II-2.2.1 (i) Common Institutional Program Requirements**

- i. The Contractor shall provide a single consolidated invoice or billing information to a designated Agency for invoicing to the institution as follows:
  - i. Payment may be pre- or on a post-usage basis based on monthly, 3 month, semi-annual, annual, or a combination of these periods at the direction of the Agency(s).
    - a. Customized programs will require the following payment options:
      - 1) Electronic Purse (Stored Value) – Pre-payment only
      - 2) Period Pass – Either pre payment or post payment
      - 3) Multi-ride –Pre-payment only.
    - b) Right to Ride programs with a Flat Rate pricing structure will only utilize pre-payment methods.
    - c) Electronic voucher programs will only utilize pre-payment methods.
  - ii. The agencies shall be responsible for flexible billing options that allow the institution to pay over time (e.g. partial billing monthly; 50% @ 30 days, 50% @ 90 days, etc.).
  - iii. Billing options shall be at the direction of the Agencies for specific institutions.
  - iv. The bill shall be broken down by Agency, transaction volume, type of transaction, and cost.
  - v. A penalty shall be applied by the Agency to any outstanding balance due for that invoice. The penalty shall be fixed at a rate not to exceed that allowable under State of Washington law. Any payment not received by the clearinghouse within thirty (30) days of receipt of a billing invoice is past due.

## CDRL 22 and CDRL 23 Submission Sequencing

Figure II-11.6

## Contract Document Requirements List (CDRL)

CDRL	Submittal Description	Reference	Notes	Group
1	Conceptual Design Review	6.II-11.2.2.1 6.III-3.2.0 6.III-6.2.2		NA
2	Preliminary Design Review	6.II-11.2.2.2 6.III-9.2 6.III-1.6.1 6.III-1.6.2		NA
3	Final Design Review	6.II-2.2.2.5 6.II-11.2.2.3		NA
4	Call Center and Internet Standards, Metrics, and Reports	6.II-1.3.1 6.II-1.3.2		Group 3
5	System Backup and Recovery Plan	6.II-5.2.8 6.II-8.2.3 6.III-1.4 6.III-3.8		Group 3
6	NSF Plan	6.II-7.2.1	(3)	Group 2
7	Revalue Network and Support Services Plan	6.II-9.3		Group 1
8	Maintenance Plan	6.II-10.1 3.I-58.1.3	(3)	Group 3
9	System Wide Spares Inventory Report	6.II-10.1	(1)	
10	Summary Fault Tracking and Maintenance Performance Report	6.II-10.1 6.II-11.5.3 3.I-58.1.4	(1)	
11	Telephone Support Procedures and Performance Measurements	6.II-10.2.2		Group 3
12	Telephone Support Statistics Report	6.II-10.2.2	(1)	
13	Implementation Plan	6.II-11.1.1 6.II-11.1.5	(2)	
14	Factory Acceptance Test (FAT) Program	6.II-11.4.2	(2)	
15	Maintainability Test Plan	6.II-11.4.2.5	(2)	
16	System Integration Test Plan	6.II-11.4.3.1	(2)	
17	System Commissioning Plan	6.II-11.4.5	(2)	
18	Beta Test Plan	6.II-11.4.6.5	(2)	
19	Certification of Beta Test Readiness	6.II-11.4.6.6	(2)	

CDRL	Submittal Description	Reference	Notes	Group
20	Failure Review Process	6.II-11.4.7.1	(2)	
21	Acceptance Testing Plan	6.II-11.4.7.2	(2)	
22	Test Procedures	6.II-11.4.8.1	(2)	
23	Overall Inspection and Test Plan	6.II-11.4.8.2	(2)	Group 3
24	Test Reports	6.II-11.4.8.5	(2)	
25	Quality Assurance Program	6.II-11.5	(2)	
26	Program Management and Progress Plan	6.II-11.5	(2)	
27	Monthly Progress Reports	6.II-11.5.2	(1)	
28	Training Program Plan	6.II-12.1.1	(2)	Group 3
29	Training Materials	6.II-12.3	(2)	
30	National Architecture Conformance Plan	6.III-1.2.2	(3)	Group 2
31	System Security Plan	6.III-1.3		Group 2
32	Electromagnetic Compatibility Plan	6.III-1.7.1		Group 1
33	Required Manuals Schedule	6.III-1.8.2.1		Group 3
34	System Operations Manual	6.III-1.8.2.4	(2)	
35	System Maintenance Manual	6.III-1.8.2.5	(2)	
36	Required Maintenance Tools	6.III-1.8.2.5	(2)	
37	Software Documentation	6.III-1.8.2.6	(2)	
38	Current Parts List	6.III-1.8.2.7	(2)	
39	System Availability Measurement Plan	6.III-1.5.2	(3)	Group 2
40	Non-Fare Applications	6.III-14.1		Group 2
41	Contract Close-Out Transition Plan	3.I-85	(2) (3)	Group 3
42	Baseline Project Schedule		(2)	

**Notes:**

1. Include in monthly or other periodic reports.
2. CDRL delivery to be coordinated with associated milestone.
3. CDRL may be submitted with narrative description of purpose at Conceptual Design Review. No outline required. The review of such narrative statements shall be performed in accordance with Section 3.I-27.5 of the Contract. The acceptance criteria shall be that the narrative satisfactorily demonstrates the Contractor's comprehension of the CDRL purpose and the Contractor's role and responsibilities to perform the work required.